

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A process for the production of a biocompatible crosslinked gel, comprising the steps of:

starting a crosslinking reaction of a predetermined quantity of at least one biocompatible polymer in solution by the addition of a quantity of crosslinking agent in a reaction mixture,

crosslinking said quantity of polymer,

adding a supplemental quantity of polymer of a molecular weight higher than 500,000 Da in solution with dilution of the reaction mixture so as to decrease the overall concentration of the polymer in solution, and ~~of~~ continuing crosslinking, and

stopping the crosslinking reaction by elimination of the crosslinking agent.

2. (previously presented) The process according to claim 1, wherein the step of starting a crosslinking reaction is carried out in a basic medium.

3. (previously presented) The process according to claim 1, wherein the step of starting a crosslinking reaction is carried out in an acid medium.

4. (previously presented) The process according to claim 1, wherein a supplemental quantity of crosslinking agent is added during the step of adding a supplemental quantity of polymer.

5. (previously presented) The process according to claim 1, wherein the step of stopping the crosslinking reaction is carried out by dialysis.

6. (previously presented) The process according to claim 1, wherein the polymers are of natural origin.

7. (previously presented) The process according to claim 6, wherein the polymers of natural origin are compounds selected from the group consisting of: hyaluronic acid, chondroitin sulfate, keratan, keratan sulfate, heparin, heparin sulfate, cellulose and its derivatives, alginates, xanthane, carrageenan, proteins or nucleic acids.

8. (previously presented) The process according to claim 6, wherein at least one of the polymers of natural origin

is a polymer not naturally present in the human body, selected from the group consisting of: cellulose and its derivatives, alginates, xanthane, carrageenan, and a polymer which is crosslinked with at least one polymer naturally present in the human body selected from the group consisting of: hyaluronic acid, chondroitin sulfate, keratan, keratan sulfate, heparin, heparin sulfate, proteins or nucleic acids.

9. (previously presented) The process according to claim 1, wherein the crosslinking agent is a bifunctional or polyfunctional molecule comprising components selected from the group consisting of epoxys, epihalohydrins and divinylsulfone.

10. (previously presented) A gel prepared by the process according to claim 1.

11. (previously presented) The gel according to claim 10, comprising at least one dispersed active ingredient.

12. (currently amended) ~~The use of a gel according to claim 10,~~ A method to separate, replace or fill a biological tissue or increase the volume of said tissue or else to supplement or replace a biological fluid comprising injecting the gel according to claim 10 in said tissue.

13. (previously presented) The process according to claim 2, wherein a supplemental quantity of crosslinking agent is added during the step of adding a supplemental quantity of polymer.

14. (previously presented) The process according to claim 3, wherein a supplemental quantity of crosslinking agent is added during the step of adding a supplemental quantity of polymer.

15. (previously presented) The process according to claim 2, wherein the step of stopping the crosslinking reaction is carried out by dialysis.

16. (previously presented) The process according to claim 3, wherein the step of stopping the crosslinking reaction is carried out by dialysis.

17. (previously presented) The process according to claim 4, wherein the step of stopping crosslinking is carried out by dialysis.

18. (previously presented) The process according to claim 2, wherein the polymers are of natural origin.

19. (previously presented) The process according to claim 3, wherein the polymers are of natural origin.

20. (previously presented) The process according to claim 4, wherein the polymers are of natural origin.